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QUARRY BANK MILL

1. THE STORY OF THE MILL

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Quarry Bank Mill, elegant and ivy covered, stands in the peaceful valley of the river Bollin, not 10 miles south of the centre of Manchester. Its fine Georgian façade, set off by great banks of trees, and surrounded in their seasons by daffodils, bluebells, and flowering shrubs, offers a striking contrast to the gaunt lines and forbidding aspect of its more modern counterparts not far to the north.

Through the generosity of its former owners, the Greg family, the mill and its surroundings, including the picturesque village of Styal, are now the property of the National Trust, ensuring that this most beautiful of all cotton mills will be preserved to posterity as an example that industry need not of necessity be cradled in ugliness.

But its interest for us lies not in its beauty, nor in its undoubted commercial success, but in the fact that here, before any legislation was enacted, there existed a health and welfare service, generous in its provisions and in its application. By good fortune the records of the medical officers, covering the years from 1804 to 1847, have been preserved

FIG. 1.—Quarry Bank mill. Samuel Greg's house can be seen at the end of the façade beyond the mill chimney.

at the mill, a unique testament to this pioneer occupational health service which will be described in the second part of this essay.

Samuel Greg (1756-1834)

The mill was built in 1784 by Samuel Greg, the son of Thomas Greg, a Belfast shipowner, and Elizabeth Hyde, the sister of Nathaniel and Robert Hyde, fustian manufacturers, of Manchester. The boy was educated first at Harrow, and then at a rival school at Stanmore. Upon leaving school he went to work for his uncles, who seem to have been impressed by his ability and industry, for in due course they offered him the inheritance of their business.

This was a time of great activity in the cotton industry. Arkwright had recently patented the water frame (1769) and Hargreaves, though more deserving, had been denied the patent rights for his spinning jenny (1770). The new mass-production industry of cotton spinning was getting under way and Samuel Greg, not slow to realize its possibilities, resolved to build a spinning mill, taking as his partner John Massey, who unfortunately died within a year. Together with Hugh Oldham, a surveyor, they prospected along the banks of the river Bollin in search of a suitable site, and at a spot then called Ferney Brow, they calculated (and the figures can still be seen at the mill) that the fall of water was just enough to operate a water-wheel at the necessary horse-power. The name Ferney Brow, however, suggesting as it did the philosopher of Ferney (Voltaire, 1694-1778), did not commend itself to a New Light Presbyterian, and the name Quarry Bank was therefore adopted from a farm close by which was bought four years later. In the deeds which are preserved in the Rylands Library, Manchester, Samuel Greg promised " the preservation of the sylvan amenities ", and the beauty of the locality at the present time shows that he was a man of his word.

In 1787 he married Hannah Lightbody and built a pleasant house at the northern end of the mill, at the same time retaining his town house in King Street, Manchester. There they raised a family of sons and daughters, all of whom shared the obligations of a philanthropic employer and the advantages of a rapidly developing business. There, too, Samuel Greg died in 1834, following injuries received when he was charged by a deer in the carriageway in front of the house.

The first lease of the land was taken out in January, 1784, and by early summer the mill, a four-storey building, ninety feet long by thirty feet wide, with mullioned windows and a little bell tower, was in operation. The total cost, including Arkwright machinery, was £16,000. The first employee was a local girl called Peggy Chapman, who started work in May, 1784. Soon there were 150 men, women, and children employed—the last in the majority—operating the 3,000 spindles worked by two wooden water wheels ten feet in diameter. The men earned 10s. to 12s. a week, the women 5s., and the children 1s. 6d. to 3s. The Brazilian cotton used was bought at 5s. a pound, and after being spun into warp for the finest muslins, was sold at 20s. a pound. Some work was put out to other factories nearby and to domestic spinners and handloom weavers.

After 11 years Peter Ewart, a Scottish engineer trained at the factory of Boulton and Watt in Birmingham, was taken into partnership. New machinery was installed, the original machines being of poor design with much wood in their construction, and a fresh weir was built to give a greater head of water. (This weir still exists and on its western side can be seen a small cave in the rocks, originally called Disley Kirk after a hermit who lived there.) The mill was enlarged southwards to double its length, an attic storey was added, and the original wooden wheels were replaced by an iron wheel, the first in the country. This was a breast wheel with buckets or troughs instead of blades or paddles, 32 feet in diameter and 21 feet wide, weighing 43 tons and producing 100 nominal horse-power.

The mill was said to impound more than its fair share of the water power available and legal difficulties arose with the owner of a corn mill at Ashley, a few miles down the river, who was deprived of water, and with the tenant of Pownall Hall, whose land was occasionally flooded. These troubles and the demand for more water power resulted in the installation in 1800 of a 10 h.p. engine by Messrs. Boulton and Watt, the receipt for which can still be seen at the mill (Quarry Bank MSS.).

Transport

Before the mill was built the only form of transport in existence in the area was the pack horse. But soon roads began to replace the bridle paths and " lumbering carts with wide fellies " carried the finished yarn via Oversley Ford to Altrincham where there was a quay on the Bridgewater Canal at Broadheath. In the beginning two farmers arranged the cartage, but later Samuel Greg bought his own wagons. This system of transport remained in use for 90 years (Henshall, 1957).

Labour Supply

The total population of Styal in 1787 was 420, and until the coming of the mill the community had

existed mainly on domestic industries, though there was a small tannery and bootmaking establishment. Mohair and silk stitched and lapped buttons were made from material brought by the " putters-out " from Macclesfield, and jersey, a cotton and wool mixture was spun on what were called "tow" wheels. The jersey material was brought from Yorkshire by the salters who used the caves near Quarry Bank as a camp on their way with pack horses to Middlewich and Northwich. Such was the industry of the people that " boys and girls of 6 years old could almost earn their living " (Finney, 1785). At 8 years they could earn 3d. to 4d. a day, and an active, diligent woman, 4s. a week. The fashion for mohair buttons was short-lived, and the supply of the raw material for jersey spinning was uncertain, but they produced in the village a reservoir of skilled and semi-skilled labour which welcomed the opportunity of regular employment afforded by Quarry Bank Mill.

The population of 420 in 1787 consisted of 131 householders, 149 male children, 114 female children, 14 male servants, and 12 female servants. This had increased to 523 by 1801, of whom 114 were engaged in agriculture, 227 in trades, and 132 in neither. (The remaining 50 were probably children under working age.) The numbers employed at the mill were, according to the wage books, in 1790, 263, in 1820, 448, in 1848, 421, and in 1851, 413. The average distribution of employees was 27% men, 39% women, 19% boys, and 15% girls. Some of the additional labour came from Wilmslow and outlying villages and male labour was imported from as far as Nantwich and Manchester. The social restlessness of the times led to an influx of labour from many other districts, much of it casual and unreliable. Though in some cases whole families might be sent by the Poor Law authorities, the characteristic of the times was the employment of young children from the poorhouses —the parish apprentices.

Apprentices

Much has been written about the employment of parish apprentices, rescued in their infancy by a philanthropy which only saved their lives for an unhappier fate in their youth. The Boards of Guardians, saddled with a rising population in the workhouses and no doubt as anxious to equip the young people with a trade as to get them off their hands, thankfully shifted the responsibility for their maintenance to the employers clamouring for cheap labour. The stories of Robert Blincoe (Brown, 1832) and Michael Armstrong (Trollope, 1840) describe the conditions under which some of these " little slaves " had to work. Samuel Greg, in employing them, followed what was only common practice at the time but, under the benevolent care of his family, these children were much better off than they would have been under " the step-motherly care of the Poor Law ". Lazenby (1940) says that local children were not employed to the same extent because factories were linked in the minds of the people with workhouses and so Samuel Greg had to go to the workhouses for his hands.

In 1785 pauper apprentices were obtained from Newcastle-under-Lyme and the indenture of the first of these is still preserved.

> It " witnesseth that Thomas Payne churchwarden of the Parish and Borough of Newcastle in the County of Stafford and Thomas Barratt Overseer of the Poor of the said Parish and Borough by and with the consent of His Majesty's Justices of the Peace for the said Borough do put and place Thomas Royley a poor child of the said parish (eleven years old) apprentice to Samuel Greg Esq of Manchester Cotton Manufacturer with him to dwell and serve from the day of the date of these presents until the said Apprentice shall accomplish his full age of twentyone years. . . . During all which time the said Apprentice his Master faithfully shall serve in all lawful businesses according to his Wit Power and Ability and honestly orderly and obediently in all things demean and behave himself towards this said master. . . and the said Samuel Greg shall and will during all the term aforesaid find provide and allow unto the said Apprentice meet, competent, and sufficient Meat, Drink, Apparel, Lodging and Washing and other things necessary and fit for an apprentice."

Later on they came from contiguous parishes in the south and even from as far as Norfolk and Somerset, though an Act of 1816 limited the area from which apprentices could be engaged. After 1830 the bulk of the apprentices were Irish immigrants from Liverpool. None was accepted at the mill under the age of 9. Many of them continued to work at the mill at the end of their apprenticeship and until late in the nineteenth century many villagers of Styal spoke with a " foreign ", *i.e.*, southern, accent.

About the year 1790 an apprentice house, which still stands, was built at a short distance from the mill. It was capable of housing 100 apprentices between the ages of 9 and 21. Dr. Andrew Ure (1835) described the mill and its amenities as follows:

> " At Quarry Bank, near Wilmslow, in Cheshire, is situated the oldest of the five establishments belonging to the great firm of Messrs. Greg and Sons, of Manchester, who work up the one-hundredth part of all the cotton consumed in Great Britain. It is driven by an elegant water-wheel, thirty-two feet in diameter, and twenty-four feet broad, equivalent in power to one hundred and twenty horses. The country round is beautiful and presents a succession of picturesque wooded dells, interspersed with richly cultivated fields.

FIG. 2.—The Apprentice House at the present time.

At a little distance from the factory, on a sunny slope, stands a handsome house, two stories high, built for the accommodation of the female apprentices. Here are well fed, clothed, educated, and lodged, under kind superintendence, sixty young girls, who by their deportment at the mill, as well as in Wilmslow church on Sunday, where I saw them assembled, evince a degree of comfort most creditable to the humane and intelligent proprietors. The Sunday scholars, equally numerous, belonging to the rural population, appeared to great disadvantage alongside of the factory children, the former being worse clad and worse looking than the latter, and worse behaved during divine service.

Messrs. Greg spin about 60,000 lbs. of cotton per week in their five mills, which amount to the prodigious quantity of 3,120,000 lbs. per annum, being the largest concern in the kingdom. One farthing per pound on the price of cotton wool makes a difference to them of £3,000 a year.

The female apprentices at the Quarry Bank Mill come partly from its own parish, partly from Chelsea but chiefly from the Liverpool poor-house. The proprietors have engaged a man and a woman, who take care of them in every way: also a schoolmaster and a schoolmistress and a medical practitioner. The Messrs. Greg are in the habit of looking after the education of the boys and their sisters superintend that of the girls, who are taught reading, writing, arithmetic, sewing and other domestic avocations. The health of these apprentices is unequalled by any other class of work-people in any occupation. The medical certificates laid before the Factory Commissioners prove that the deaths are only one in one hundred and fifty, being no more than one-third of the average of Lancashire. Their ages vary from ten to twenty-one years. When they grow up, they almost always marry some of the men belonging to the factory, often continue to work, and receive better wages than the other operatives, as they are obliged to take houses for themselves. Only one or two instances have occurred in the course of forty years, since the system was begun by Mr. Greg, senior, of any of them coming on the parish. The apprentices have milk-porridge for breakfast, potatoes and bacon for dinner, and butcher-meat on Sundays. They have bacon every day. About five hundred and fifty young people of this description have passed through that mill in the course of forty years. Mr. W. R. Greg says that the general state of education among their mill hands is remarkably superior to that of the agricultural people. He has attended sometimes a sort of little club established near one of their country mills, to which some of the farmers' people came, and he found an astonishing difference between their intelligence and that of the mill workers. He has observed that the children are a great deal more fatigued and less willing to go to school after a holiday, than after the business of an ordinary day. They all attend school with regularity."

While the opinions of Ure cannot always be taken literally, the stock books, containing notes of the food bought and used at the apprentice house and still preserved at the mill, support his view in this instance. As further evidence there is the statement of two boys, Joseph Fulton (17) and Thomas Priestly (13), who were brought before the Middlesex Magistrates in 1806 charged with having " eloped and deserted the service of Samuel Greg, cotton manufacturer, of Pownall Fee in the County of Chester, to whom they were apprenticed ".

They walked the whole of the way to London to see their families and were arrested four weeks later. To the magistrates they gave a full and particular account of their work, manner of treatment, diet, and clothing. After describing the nature of their

employment and their satisfaction at the treatment they received from all in charge of them, they go on to say:

> " . . . there were 42 boys and more girls apprentices; we lodged in the ' Prentice House ' near the mill and were under the care of Richard Sims and his wife. The boys slept at one side of the house and the girls at the other. The rooms were very clean, the floors frequently washed and aired every day; also whitewashed once a year. Our beds were good. We slept two in a bed and had clean sheets once a month. We had clean shirts every Sunday and new clothes for Sunday once in two years; also new working jackets when those in use were worn out."

Their diet consisted of beef (occasionally on Sundays), boiled pork, bacon, potatoes, peas, beans, and other vegetables in their season, bread, milk, milk-porridge, thick porridge, and tea when ill.

> " On Sunday we went to Church in the morning and to school in the afternoon, after which we had time to play. We also had a school every night which we used to attend once a week beside Sundays, eight boys going at a time." (Quarry Bank MSS.)

Another writer describing their appearance says: " The plain light straw bonnets of the girls were bound over the head with a green ribbon. The neat drab dresses were of a stout (green) cotton material, a sort of thinnish fustian, and the bust was concealed by a cross-over buff handkerchief. Woollen stockings and substantial shoes protected their feet and cloaks shielded them from wet or cold. The lads wore dark (green) corded breeches (with red collars and cuffs), woollen stockings and stout shoes. Their jackets were of strong fustian and they wore high-crowned hats " (Fryer, 1886).

Their working hours, 5.30 a.m. to 8 p.m., were long even by the standards of those days. There was a break of 10 minutes at 8.30 for breakfast and half-an-hour at 1 p.m. for dinner. A meal was provided at 5.30 p.m., while the machines remained in motion. When trouble arose over the water supply, overtime might be worked. The time register required under the first Factories Act of 1833 can still be seen at the mill and gives ample evidence of the frequency of this type of interruption and consequent overtime.

Discipline

Discipline was strict. Corporal punishment was administered in some cases and fines in others for bad conduct and for damage to property. Fines were severe, " breaking a lamp glass 4s.", " breaking a window-pane 1s. 4d.", " breaking a window-pane at the Master's house 8s.", " stealing apples 5s.", " for standing on the lodge steps and going out 5s". Twenty-three children absconded between 1815 and 1845, of whom only four evaded capture. Good work, on the other hand, brought its reward, for a sixpence might be found on an apprentice's machine after the manager or the master had passed that way.

Education

The object of the education provided, *viz.*, " to enable the workers to act on instructions ", was perhaps not wholly disinterested ! In 1798 regular visits by a teacher were instituted on Sunday afternoons, and there was also a singing class under a special teacher. An examination, conducted by the Greg family, was held each Christmas. The use of the slide rule was taught and it is of note that James Henshall, manager from 1847 to 1867, made some important contributions to its design.

In 1823 Samuel Greg built a small school for the children of the village to which the apprentices went in relays for two hours a day. In the same year an adult " mutual improvement society " was started, to which the sons of the family gave lectures during their university vacations. This was still in existence in 1863 but by then it had achieved the status of a " Mechanics Institute ".

Other Activities

In addition to the village school, Samuel Greg, who had difficulties over the payment of tithes to the parish of St. Bartholomew in Wilmslow, built a Unitarian chapel in 1822. He provided homes in the village for his employees, some adapted from farm buildings and some newly constructed from locally-made bricks. Many of these cottages are still standing and add to the charm of the village. A shop was also provided at which employees could make purchases, the cost being deducted from their wages, a system which had to be abandoned in 1831 with the first Truck Act, though there was no evidence of excess profits, in fact, the reverse. A profit-sharing system was begun in 1850 and abandoned in 1863. In 1873 it became the Styal Co-operative, later absorbed into the Stockport Co-operative Society.

Epilogue

A Scotsman, hearing in the story of this pioneer mill-owner an echo of his country's history, may perhaps be forgiven for mentioning one final item of interest in the story of Quarry Bank. For Samuel Greg was the great-great-grandson of William Greg of Ochiltree in Ayrshire, one of the MacGregors who, like Rob Roy, was obliged to adopt another name when the clan was proscribed during the seventeenth century. In the survival of Quarry Bank throughout the chequered history of the cotton industry, and in the knowledge that it will be preserved in the perfection of its rural setting as a part of our national

heritage, there is surely a reminder of the words of Sir Walter Scott's defiant song:

" While there's leaf in the forest and foam on the river, MacGregor, despite them, shall flourish for ever."

I should like to express my warmest appreciation of the patience, kindness, tolerance, and historical knowledge of Mr. Samuel Henshall, the present manager of the mill, who represents the fourth generation of Henshalls to have worked there. I am indebted also to Dr. A. L. Finney for making available to me the manuscript of the history of Wilmslow written by his ancestor, Samuel Finney, Lord of the Manor of Fulshaw.

(To be concluded)

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